

PROPOSED ACTION FOR MANAGEMENT OF KENNECOTT MINES NATIONAL HISTORIC LANDMARK

1. Introduction

This document describes the National Park Service (NPS) proposal for management of the Kennecott Mines National Historic Landmark (NHL), encompassing 7,700 acres of public and private lands (See Figure 1). Proposed management is focused on NPS-owned portions of the mill town, however some components of management (such as access/transportation) include the entire Kennecott/McCarthy area. Many Kennecott structures (both historic and non-historic) and lots are in private ownership; this plan is intended to address only NPS owned properties. Figure 3 shows NPS and privately owned lots within the mill town. Participation and inclusion of proposed actions by private property owners will be at the sole discretion of those owners.

This document will be available for public review and comment through August 31, 2011. At that time, NPS will compile public comments and use them to change or refine proposed actions and to develop management alternatives. Then, the proposed actions and alternatives will be analyzed in an Environmental Assessment (EA). A public review EA is anticipated to be available by mid-November, 2011. At that time, the public will have another opportunity to comment. A Final EA and Finding of No Significant Impact (FONSI), scheduled for December 31, 2011, will describe the selected alternative or combination of alternatives and will result in the new Kennecott Operations Plan.

Electronic versions of this proposed action package are available at the following locations:

- The National Park Service Planning, Environmental and Public Comment (PEPC) website at <http://parkplanning.nps.gov/wrst>.
- The Wrangell-St. Elias National Park and Preserve website at: <http://www.nps.gov/wrst/parkmgmt/planning.htm>
- The Friends of Kennicott website at: <http://www.friendsofkennicott.org>.

Hard copies can be requested by calling Bruce Rogers at 822-7276.

Comments on this proposed action package may be submitted to the park in writing at: Bruce Rogers, Wrangell-St. Elias National Park and Preserve, P.O. Box 439, Copper Center, Alaska, 99573. Comments may also be e-mailed to: Bruce_Rogers@nps.gov or Elizabeth_Schafer@nps.gov. Comments may also be submitted electronically on the PEPC site.

2. NPS Goals for Management of the Kennecott National Historic Landmark

General Goal: The general goal for management of lands in and around the NHL is to conserve the scenery, natural and historic objects, and wildlife habitat and to provide for the enjoyment of the same by such means as will leave them unimpaired for the enjoyment of the future generations. The focus for management of the Kennecott National Historic Landmark is to stabilize, preserve, and interpret the key patterns, relationships, and remaining structures and features that define the historic, cultural and natural character of the NHL. In some cases,

individual features may have such a high degree of historical significance that rehabilitation or restoration is warranted. Some landscape features may be rehabilitated or reintroduced into areas of the NHL to preserve a sense of the historic setting.

Partnerships

The National Park Service considers itself a partner with the community. The NPS, in consultation with the local community, will explore partnership proposals from organizations and/or individuals that wish to share in the operation and management of Kennecott.

Cultural Resources

Structures: The goal of the NPS Kennecott preservation program is to apply measures necessary to sustain the existing form, integrity and materials of key historic buildings within the Kennecott NHL by repairing and replacing deteriorated roofs, walls and foundations and, in some cases, by replacing and maintaining windows, siding and paint to ensure preservation of historic structures for generations to come. Some historic structures have been specifically identified for adaptive re-use. These will be generally managed at a higher standard consistent with the “Rehabilitation” definition provided in the Secretary of Interior’s Standards for Treatment of Historic Properties. Other historic buildings may be preserved or managed as ruins.

Archeological Features: Preserve archeological resources contributing to the character and interpretation of the NHL. If removal is required to facilitate building stabilization, archeological objects or features will be returned to their original location upon completion of the project. Wrangell-St. Elias National Park and Preserve (WRST) will implement a regularly scheduled inventory of these archeological resources to ensure their retention and assess their vulnerability and stability. Resources determined to be intrusive or non-contributing to the historic district may be removed if they present a safety hazard.

Small-Scale Features: To preserve the character of the landscape and to enhance the interpretive environment, consideration will be given to preserving and/or reconstructing small-scale structures and features. These features include functional and ornamental elements (such as benches), utilities (light standards, utilidors, and water systems) and mining features (such as equipment). Reestablishment or reconstruction of small-scale features must be based on historical documentation.

Circulation Systems: The majority of existing roads and trails throughout the mill town reflect historic patterns, and these will be maintained whenever possible. Pathways and boardwalks may be reintroduced within the mill town. The addition of new roads within the mill town will be discouraged.

Natural Resources

Vegetation: Existing vegetation throughout the mill town is largely the result of growth since the historic period. Selective thinning of vegetation would occur on NPS properties to reestablish historic views and view sheds and to protect the site from the effects of fire and

damage to the buildings. The NHL provides habitat for unique and rare plant species that NPS will continue to monitor.

Exotic vegetation that causes damage to or threatens other resources will be removed whenever feasible. Revegetation of disturbed areas resulting from NPS activities will utilize native seeds/cuttings from local population sources.

Wildlife: The NHL provides habitat for numerous wildlife species. NPS will protect wildlife habitat and work to prevent negative wildlife/human interactions, while recognizing that wildlife is a resource for local subsistence use.

Water Resources: Local streams provide water for the community as well as for NPS operations. NPS will take all necessary actions to maintain the quality of surface waters consistent with the Clean Water Act. NPS will continue to monitor water quality and will consult with the community in developing any necessary mitigation measures in regards to proposed activities.

Natural Soundscape: NPS recognizes that natural quiet is a component of the NHL, the surrounding landscape, and the communities within it. It is also critical to the quality of life of local residents and quality of experience for visitors. NPS will consider impacts of proposed activities on the natural soundscape and will work with the community in developing mitigation measures in order to reduce impacts.

Interpretation

NPS is currently developing an interpretive plan for the NHL and will be conducting a three day exhibits workshop in Kennecott in early June of 2011. Based on the result of this workshop, there may be minor changes to the goals and proposals for interpretation described below.

Interpretive programs at Kennecott will enable visitors to learn about the mines and the mill town, the historic relationship of Kennecott and McCarthy, natural resources and the surrounding wilderness, and the contemporary community through a variety of media, interpretive techniques, and programs. Interpretation will emphasize the opportunity for self-guided tours and a sense of exploration, utilizing unobtrusive interpretive displays. Where advantageous to the program, the NPS would enter agreements with qualified providers to conduct guided tours.

Access/Transportation

As a partner in the community, NPS supports and will manage for long-term pedestrian visitor access to the mill town, utilizing local shuttle systems. NPS will continue to accommodate landowner use of subdivision easements and motorized use for access to subsistence resources.

Administration and Operations

NPS Utilities and Infrastructure: The goal is to support structural stabilization and maintenance, visitor use, and park management in a manner least obtrusive to the historical character of the NHL. Where possible, systems will be designed consistent with historical utility systems and circulation patterns. Consideration will be given to use of alternative energy sources.

Visitor and Resource Protection: NPS will manage the NHL to protect the cultural and natural resources of the historic mining district and the surrounding glacial landscape; and provide a safe, educational, and rewarding experience for the area's visitors and residents.

3. Management Concepts

Introduction: The 2001 Interim Operations Plan for the Kennecott National Historic Landmark included a section titled **Management Concepts**. This section described elements of a shared community vision for management of the NHL. Public comments received during scoping for the Kennecott Operations Plan asked if NPS would identify which of the Management Concept elements they would still endorse.

Most interested parties within the community envision a future in which Kennecott:

- Is stabilized to prevent deterioration of historic structures or artifacts and to make them available to the public. *NPS supports, recognizing that some buildings may not be accessible because of safety hazards.*
- Is managed with a "light touch" in which projects are undertaken in small steps, at modest costs, with minimal intervention process. *NPS has not met this element and can't support it for some facets of management of the NHL, particularly structures. In relation to management of historic structures, "light touch" or "arrested decay" are not concepts recognized in NPS policies and direction, particularly in the Secretary of Interior's Standards for Treatment of Historic Properties. NPS goals for treatment of historic structures are stated on page 2. While some structures will be managed as ruins, most will be managed consistent with standards identified for the "preservation" or "rehabilitation" classes of management identified in the Secretary of Interior's Standards for Treatment of Historic Properties.*
- Is not just an abandoned mining town, but also a place that reflects the vitality, creativity, and community spirit of today's residents. *NPS supports.*
- Retains the slow pace, quiet, and spaciousness that foster contemplation and individual reflection. *NPS supports this element in long-term management of the NHL, but cannot meet it while carrying out the work necessary to meet the goals identified for historic structures on page 2. Long term, this element is affected most by public access to the NHL. The NPS goal for Access/Transportation supports this element but ultimate public access to the NHL will not be determined solely by the NPS.*
- Is part of a larger community in which residents act both individually and collectively to guide the future of the area. *NPS supports.*
- Contributes to a strong, reasonably diverse economy that includes locally owned and operated businesses, community-based nonprofits, and traditions of barter and subsistence. *NPS supports under the assumption that "locally" includes the Copper River watershed.*
- Protects and honors small-town values: safety, cooperation, self-sufficiency, and personal freedom. *NPS supports as long as "personal freedoms" do not conflict with the Federal laws and regulations which the NPS must administer.*
- Is a place where tourism is allowed to evolve within the capacity of the community, rather than a place where external intervention and control accelerate growth. *NPS*

supports as long as the community recognizes that key elements controlling access are outside the control of the NPS.

- Is seen by local residents and visitors alike in its true context: a remote outpost of civilization in the midst of an enormous mountain wilderness. *NPS supports.*
- Is managed to protect the cultural and natural resources of this historic mining district and the surrounding glacial landscape; and provides a safe, educational, and rewarding experience for the area's visitors and residents. *NPS supports.*

4. Communication

The 2001 Kennecott Interim Operations Plan stated that NPS would establish procedures for early and regular discussion with the community regarding proposed NPS activities at Kennecott.

WRST has identified the following elements of a communication procedure with the community:

- Ensure that WRST management is available for public access by positioning a member of the WRST management team in Kennecott, on a rotating basis. A WRST management team member will attend each MAC meeting.
- Hold annual spring and fall meetings with the local community. Spring meetings will focus on planned activities for the coming summer, involving appropriate subject matter experts. Fall meetings will provide a wrap-up and summary of what was accomplished, and will include a description of planned outyear activities.
- Provide a web-based educational component regarding projects at Kennecott--how they are entered into the budget system, how they are prioritized; where and when project design, contracting, and NEPA compliance occurs. Identify points in the process where there are opportunities for public involvement.
- Additional and ongoing individual or project-specific communication. This includes continuation of annual Superintendent's letter.

5. Applicable Laws, Regulations, and Policies

This section is necessary to provide information on the legal/policy sideboards under which NPS operates. This is not an all-inclusive list, but includes the laws, regulations, and policies most relevant to the management of a National Historic Landmark.

Kennecott National Historic Landmark: Kennecott was listed on the National Register of Historic Places (NRHP) in 1978 and became a National Historic Landmark in 1986. Kennecott Mines National Historic Landmark is nationally significant under National Register Criterion A as physically representative of early copper mining in Alaska and under Criterion C for engineering as this is the world's first ammonia-leaching plant. The period of significance spans from the first claims in 1900 to the closure of the operation in 1938. If the need arises, the park has the ability to recognize and preserve structures and features outside of the period of significance.

National Historic Preservation Act of 1966 (NHPA) as amended: NHPA requires Federal agencies to take into account the effects of their undertakings on historic properties and mitigate or minimize any adverse impacts. "Undertaking" is defined as a project, activity or program,

funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; and those requiring a federal permit, license, or approval. Under the law, federal agencies must consult with the State Historic Preservation Officers (SHPOs) and the public regarding the effects of their projects. Consultation should be initiated early in the project planning process, before the project actually occurs. Often, an archeological survey will be conducted to identify and record sites. Sites which may be eligible for the National Register of Historic Places (NRHP) are defined as “historic properties”. Adverse effects to historic properties must be avoided or mitigated. Because Kennecott is an NHL, it has the highest designation under the National Register of Historic Places. Because of that significance, any action that is determined as having an adverse effect is automatically subject to review not only by the SHPO, but also the Advisory Council on Historic Preservation (ACHP) and the Secretary of the Interior.

2008 Nationwide Programmatic Agreement: The 2008 Programmatic Agreement (PA) between the NPS and the National Conference of SHPOs and the ACHP allows the NPS to streamline the compliance process from the standard NHPA process for certain activities such as maintenance and installation of signs provided that the projects meet certain criteria. The streamlined process is used on many NPS projects in the park and must be reported to the SHPO on an annual basis. A separate PA describes the management of Kennecott specifically.

Kennecott Programmatic Agreement: An original 1999 Programmatic Agreement between the SHPO and Wrangell-St. Elias National Park and Preserve (WRST) has been replaced by the 2010 PA. Under the current PA, WRST may perform a variety of undertakings without initial review by the SHPO or the ACHP provided that those undertakings do not produce adverse effects, are in keeping with the Secretary of Interior’s applicable standards and guidelines, and are monitored by an archeologist. The undertakings which were allowable for streamlined review under the 1999 PA were created in consultation with SHPO, local tribal councils, the Friends of Kennecott and the McCarthy Area Council. The 2010 expands those slightly and reflects the NPS Systemwide PA.

National Environmental Policy Act (NEPA): The cultural resources portions of NEPA are in some ways more inclusive than the NHPA. NEPA defines cultural resources more broadly than NHPA which is only concerned with sites and districts which are eligible for the NRHP. Under NEPA, cultural resources may include modern aspects of the human environment, historic and prehistoric buildings and sites, Native American sacred sites, and traditional use areas. Under NEPA, federal agencies must also consider indirect effects and cumulative effects as well as direct effects. NEPA actions usually require some form of review or comment from the public or from specific interested parties.

Secretary of the Interior’s Standards and Guidelines on Historic Preservation: As part of the Department of the Interior, the NPS adheres to the Secretary’s Standards. There are standards and guidelines for archeology and historic preservation, architectural and engineering documentation, professional qualifications, rehabilitation, treatment of historic properties, preserving, rehabilitating, restoring and reconstructing historic buildings, and for the treatment of cultural landscapes. These standards and guidelines influence topics from personnel decisions to treatment procedures for buildings at Kennecott.

Secretary of the Interior's Standards for the Treatment of Historic Properties: The following classes of treatment are recognized.

- *Preservation* means the act or process of applying measures necessary to sustain the existing form, integrity and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive mechanical, electrical and plumbing systems and other code-required work to make properties functional are appropriate within a preservation project.
- *Rehabilitation* means the act or process of making possible the efficient compatible use for a property through repair, alterations and additions while preserving those portions or features that convey its historical, cultural or architectural values.
- *Restoration* means the act or process of accurately depicting the form, features and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period.
- *Reconstruction* means the act or process of depicting, by means of new construction, the form, features and detailing of a non-surviving site, landscape, building, structure or object for the purpose of replicating its appearance at a specific period of time and in its historic location.

NPS 28: Cultural Resource Management Guideline: Director's Order 28 instructs the NPS to protect and manage NPS-owned cultural resources in accordance with *NPS Management Policies 2006*, comply with the Secretary of Interior's Standards and Guidelines for Archeology and Historic Preservation, and follow the NPS Cultural Resource Management Handbook. Of particular relevance to management of historic structures at Kennecott are the following descriptions:

Ultimate Treatment (section 8:C.1.a): The ultimate treatment of a historic structure is a general definition of its development limits based on considerations of use and the historic character that should be presented to the public. It is accomplished through one or more construction projects, after which the structure is preserved by preservation maintenance. Subsequent rehabilitation or restoration may be needed to update the structure's functional aspects and to repair or replace damaged or deteriorated features. Pending ultimate treatment, a structure is stabilized and protected in its existing condition; it may also receive interim treatment compatible with its planned appearance and use.

Removal or Neglect (section 8:C.1.c):

Demolishing a historic structure or deliberately allowing it to decay naturally is justifiable only when all alternatives have been determined infeasible in the planning process. *NPS Management Policies 2006* prohibits demolition unless necessary for public safety or to eliminate an unacceptable intrusion. No structure listed in or potentially eligible for the National Register will be removed or deliberately neglected without review by cultural resource specialists and approval by the regional director.

Executive Order 13006: Executive Order 13006 directs federal agencies to “utilize and maintain” historic properties and encourages them to locate federal facilities in historic properties particularly those within historic districts.

36 CFR-79: Curation of Federally Owned and Administered Archeological Collections outlines the standards and guidelines for the curation of cultural resource collections. These regulations include information on the facilities in which artifacts are stored and exhibited, how and to whom artifacts may be loaned, and how to keep records associated with each artifact.

Kennecott National Historic Landmark Mitigation of Hazardous Material Issues Work Plan: This agreement, signed in 1999 by the NPS and Alaska Department of Environmental Conservation (ADEC), requires NPS to mitigate hazardous materials issues and identifies methods and strategies to do so. It specifically identifies 144,000 square feet of building surfaces covered with lead-based paint. The recommended management option is that the potential exposure to lead-based paint be mitigated as part of the stabilization/maintenance of the site, through a combination of removal and disposal of the lead-based paint, encapsulation of the lead-based paint or repainting with non-lead paint, or capping impacted surrounding soils.

Title 43 CFR 36.11(g)(2): This Alaska-specific regulation was promulgated in 1986. This regulation authorizes federal agencies to issue permits for the use of Off Road Vehicles (ORVs) on existing ORV trails, except in areas designated as wilderness, upon a finding that such ORV use would be compatible with the purpose and values for which the area was established. Permit conditions are required to protect resources. Under this regulation, recreational use of ORVs may be permitted on existing trails, in the park or preserve portions of Wrangell-St. Elias, with a finding of compatibility.

Title 36 CFR 13.46: Allows the use of surface transportation traditionally employed for subsistence uses. The 1986 Wrangell-St. Elias National Park and Preserve General Management Plan made the determination that ORVs were a traditional means of access to subsistence resources in the park.

Title 36 CFR Part 13: This section lists the regulations for the National Park System Units in Alaska. Subpart V lists the special regulations that apply to Wrangell St. Elias National Park and Preserve and section 13.1904 lists regulations specific to the Kennecott Mines National Historic Landmark.

6. Architectural Control Committee

The Architectural Control Committee (ACC) is currently working on revising the Mill Site Subdivision Covenants. The Kennecott Operations Plan will describe the results of those revisions, clarify NPS role on the ACC, and explain how covenants are enforced by the committee.

7. Zone by Zone Proposals

Introduction: The following sections describe specific NPS proposals for structural stabilization/preservation, interpretation, vegetation management, and small scale features. The

proposals specifically apply to NPS property. The described zones are based on those described in the 2001 Cultural Landscape Report (see Figure 2), as follows:

- **Administrative Core:** Includes the following historic structures: General Manager's Office, Hospital, Railroad Trestle, Assay Office, Railroad Depot, and the Company Store. This zone consists entirely of NPS lands.
- **Industrial Core:** Includes the tram terminus, the mill building, the Leach Plant, the Machine Shop, the Power Plant, and the Transformer House. With the exception of Lots 64, 65, 66, and 76, this zone is made up of NPS lands.
- **Commercial:** Includes the NPS owned Refrigerator Plant, West Bunkhouse, New School, Recreation Hall, Old Schoolhouse, and Dairy Barn. Outside of these historic structures and lots, this zone consists mostly of private lands.
- **Residential A:** Residential area south of National Creek includes the East Bunkhouse, National Creek Bunkhouse, north Silk Stocking cottage, and south Silk Stocking Cottage. This zone is an equal mix of NPS and private lands.
- **Residential B:** Residential cottages north of National Creek along the railroad bed includes Kennecott Cottage 39C, Lot 88; Kennecott Cottage 13C, lot 80; and Kennecott Cottage 39B, Lot 87. This zone consists mostly of private lands, interspersed with NPS owned lots.

In addition, proposals are listed for Transportation/Access, NPS Utilities and Infrastructure, Visitor and Resource Protection, and Other.

Administrative Core Zone

Archeological Resources: Wherever feasible, all categories of archeological resources identified in the 2000 Cultural Landscape Report will be retained on the landscape. If removal is necessary for public safety or to facilitate building stabilization, archeological resources will be re-located as close to the original documented location as possible. Areas within this zone that include a high density of archeological features include National Creek, the Sawmill and Carpenter's Shop, and the Store and Warehouse.

Vegetation: The following vegetation clearing would be done around all historic structures on NPS lands in this zone, for fire and windfall protection; and for access to the buildings:

- Clear all woody vegetation within 30' of all structures.
- Limb trees up to 10' above the nearest surface fuel within 100' of all structures.

Area will continue to be monitored for invasive plants and populations of such will be manually removed.

Circulation/Access: The following are proposed for this zone:

- Improvement and maintenance of a pedestrian trail from the General Manager's Office, up the creek to the footbridge, connecting to the top of the mill building (see Figure 3). This trail would connect with the Old Wagon road and Silk Stocking Loop described in the Residential A zone.
- Reconstruct hose houses which are historically appropriate and replicate original signs. Reconstructed hose houses may be used in association with the proposed fire suppression system. See NPS Utilities and Infrastructure section.

General Manager's Office

What has been done: Between 2004 – 2009, reconstruction of site to reverse previous flood damage and installed ramp that meets Americans with Disabilities Act (ADA) standards, constructed cribbing retaining walls, removed lead contaminated materials, dismantling and reconstruction of east, north and west additions, replaced deteriorated logs at foundation, new foundation, restored log structure, new electrical wiring and lighting, interior restoration, restored and replaced wood windows and doors, widen doors for ADA access, painted exterior and interior, reinstall cabinet works. Historic photos were added to rooms on ground level in 2009.

Proposed Actions (structural): Cyclic maintenance. For most preserved or rehabilitated historic structures, cyclic maintenance means repairs to roofing, windows (re-caulking), and re-painting on a 5 – 10 year cycle.

Interpretation: Open to the public. Develop a historic furnishings plan and exhibits plan. Part of self-guided walking tour.

Vegetation: Re-vegetate area with native seeds/cuttings from localized populations.

Hospital

What has been done: Severe flood damage in 2006. Foundation stabilized, removal of ruins from east end. Windows and doorways screened to control access into unstable and unsafe environment.

Proposed Actions (structural): Implement interior false-work to keep walls, floors and roof from collapsing. Maintain a roof. No interior access proposed. No painting proposed.

Interpretation: Protect and interpret as a ruin. No interior access proposed. Part of a self-guided walking tour. Modify existing accessible windows so that visitors can see inside.

Assay Office

What has been done: Severe flood damage in 2006 resulted in a loss of structural integrity. Removed and relocated salvageable building parts to another site in 2010.

Proposed Actions (structural): Will move salvageable remains of the building back to its original location.

Interpretation: Protect and interpret as a ruin. Part of a self-guided walking tour.

Vegetation: Remains of the building will be kept clear of tall woody vegetation for viewshed and fire protection.

Railroad Depot

What has been done: 2002: Lead paint mitigation, lifted and leveled, new foundation, siding repairs, construct interior ticket counter, stove, restored interior finishes, painted exterior siding, and new roofing.

Proposed Actions (structural): Cyclic maintenance. Restore electrical.

Interpretation: Open to the public. Replicate original Wells Fargo and Railroad Depot signs. Develop a furnishings plan and exhibits plan. Consider this space as a possible location for Alaska Geographic store.

Sawmill and Carpenters Shop

What has been done: Nothing. Structure collapsed in the 1970's.

Proposed Actions (structural): Allow ruin to deteriorate in place.

Interpretation: Interpret as a ruin. Part of a self-guided walking tour.

Vegetation: Keep site free of vegetation in order to interpret as ruin and to protect from fire/rot.

Company Store

What has been done: 2008 Phase I work included lifting and leveling of building, subfloor excavation for access, new foundation, floor structure, retaining wall at east elevation, removed siding, installed structural shear diaphragm and wall structure, reinstall siding, restored and replaced windows and doors, new electrical wiring, new furnace, clean and mitigate lead paint in store area, reconstructed egress rampways, repainted, constructed curatorial storage area and ranger cache. Opened as visitor contact station.

Proposed Actions (structural): Phase II work to include: Level 1--construct public restrooms, complete field lab area, interior finishes, lights, elevator/lift to Level 2 and 3, install utilities and additional furnaces. Level 3--construct staff office area, interior finishes, lights and communications. Maintain as primary visitor contact point and administrative office space.

Vegetation: Thin some trees to open up viewshed in front of deck area.

Interpretation: Develop a furnishings plan and exhibit plan. Open to the public. Maintain as primary visitor contact point. Develop a furnishings plan and exhibit plan. Consider developing the outside area of the front and back of store as a gathering place for visitors. Replicate original Post Office sign.

Small scale features: Maintain Hoist House. Clear random building material from interior, strong interpretive value. Re-establish cribwall/utilidor from Company Store to the end of the Carpenter's shop.

Railroad Trestle

What has been done: Reconstructed in 2009 to preserve railroad feature and provide owner access to property north of National Creek. Work included dismantling of flood damaged trestle, contracted for concrete footings, and constructed replica of historic trestle.

Proposed Actions (structural): Minor finish work such as closing up utilidor. Cyclic maintenance.

Interpretation: Part of a self-guided walking trail. Possible interpretive exhibit opportunity.

Vegetation: Selectively clear for viewshed of glacier and tailings retaining wall.

National Creek Re-Channelization

What has been done: Re-channelization using rip-rap done in 2010.

Proposed Actions (structural): Work on National Creek will include building a flood wall by the upper foot bridge and placing rip-rap at the East Bunkhouse.

Vegetation: Re-vegetate for stabilization with alder and willow cuttings taken from local source populations.

Industrial Core Zone

Archeological Resources: This zone contains a high density of archeological resources. Wherever feasible, all categories of archeological resources identified in the 2000 Cultural Landscape Report will be retained on the landscape. If removal is necessary for public safety or to facilitate building stabilization, archeological resources will be re-located as close to the original documented location as possible. This includes the concentration mill ore chute.

Vegetation: The following vegetation clearing would be done around all historic structures on NPS lands in this zone, for fire and windfall protection; and for access to the buildings:

- Clear all woody vegetation within 30' of all structures.
- Limb trees up to 10' above the nearest surface fuel within 100' of all structures.

Selective thinning for viewshed would also be undertaken in order to enhance views. Specific areas of consideration in this zone would be on NPS lands along the Portal trail above the mill building and along the trail linking the GMO to the top of the mill building (See Figure 3). Revegetation of disturbed areas (such as proposed water lines or temporary roads) would be conducted utilizing native herbaceous vegetation seed collected from the surrounding area. Area will continue to be monitored for invasive plants and populations of such will be manually removed.

Circulation/Access: The following are proposed for this zone:

- Construct accessible trails and boardwalks behind the power plant, machine shop, and leaching plant (See Figure 3).
- Reconstruct hose houses which are historically appropriate and replicate original signs. Reconstructed hose houses may be used in association with the proposed fire suppression system. See NPS Utilities and Infrastructure section.

Tram Terminus

What has been done: Friends of Kennecott re-roofed in the 80s; NPS has maintained brushing; maintained roof; supported foundation repairs; walkway and railing; secured the site with doors.

Proposed Actions (structural): Scheduled for 2016 are structural repairs to the upper mill including the tram deck, structural reinforcement to ore bin, floor repairs, and reconstruction of upper tram deck roof. Long term plans (more than 10 years) include window replacement and painting in order to protect interior work and stabilization.

Interpretation: Open to the public. Part of a self-guided walking tour. Possible interpretive exhibit opportunity.

Vegetation: Maintain scenic views through continued brushing.

Small scale features: Brush plants and remove building material to expose the utilidor running from Tram Terminal to Power Plant.

Concentration Mill

What has been done: Study, design, and engineering for the internal stabilization of the building. NPS has a concessions contract with St. Elias Alpine Guides to conduct mill tours.

Proposed Actions (structural): Work on the mill will take place in two Phases. Phase I - Work to include structural repairs including foundation repairs and column and truss repairs Levels 1 through 7. Mock-up for project to test internal stabilization methods is scheduled for 2011, with other work scheduled for 2012. Access for 2012 work may require construction of two temporary access roads and scaffolding in order to get equipment needed for stabilization into the upper levels of the mill building (see Figure 3). The proposed temporary access road from the north side would come off the existing Portal road, through Lot 75 and end 100 – 150' from the north side of the mill building. At this point, scaffolding would be used to bridge the unvegetated gap between the end of the road and the north elevation of the mill building. The road from the south side would begin past the GMO and provide access to the mill building just east of the Hancock addition. Repairs to the mill to repair the foundations and reestablish deteriorated timber crib retaining walls will require site disturbance during the period of construction. Once completed, the landscape will be restored.

Phase II – Work to include structural repairs to the mill structure at Levels 8 and above. This work is currently planned for 2015 and will include foundation and column and truss repairs, stabilization of the ore bins and repairs and reconstruction to the upper tram deck to include the reestablishment of the original roof.

The intent of the proposed work is to stabilize the structure for a guided visitor opportunity. Long term (more than 10 year) plans would include siding repairs and replacement and painting. Window repairs and replacement may be required to protect the interior of the building and to provide draft control as part of future fire suppression within the mill.

Archeological resources: Replace ore chute.

Interpretation: Interpretation of the stabilized mill building through partnership/concession-led tours that meet NPS standards for interpretation. Possible interpretive exhibit opportunity in the sacking shed and outside of the building.

Small scale features: Track inclines on north and south sides of mill building will be brushed or otherwise cleared and managed as ruins; reconstruction of roof enclosure will occur on the utilidor along south edge of mill building; and clear tailings from north side of the shed south of mill building.

Leaching Plant

What has been done: Measures were taken to prevent collapse or further deterioration of the building, including temporary roofing and foundation repairs on the sacking shed.

Proposed Actions (structural): Ongoing work to include repairs to halt collapse onto railroad corridor, site stabilization, lifting and leveling sacking sheds, foundation replacement, repairs to floor and wall structure, lead paint mitigation (including painting), rehabilitation of doors and

windows to control access. Scheduled 2017 work includes structural repairs to the west, north and south walls of the leaching plant including column realignment and footings, shear wall repairs, truss repairs, and asbestos abatement. Allow south addition to collapse and manage as a ruin. Implement interior false-work/rigging to keep ruin structure from collapsing onto the railroad corridor or into the north addition. No interior access proposed.

Interpretation: Continued tour opportunity with mill building. North sacking shed identified for future milling exhibit to accommodate physically challenged visitors that cannot access the Mill. Exhibits could include reinstatement of original equipment such as shaker tables and crushers that demonstrate the different milling processes. Possible interpretive exhibit opportunity outside of the building.

Small scale features: Stabilization/reconstruction of bracing and the original track incline for the leaching plant deck, north of leaching plant; reconstruction (in conjunction with the wood flume) of utilidor from power plant to leaching plant. Reestablish the deck at the north elevation, integrate ADA ramp into sacking shed. Also clear building material around and on utilidor structure.

Machine Shop

What has been done: 2002 work included new foundation, retaining wall construction, partial roof reconstruction, re-roofing, siding repair, painting, and some window replacement.

Proposed Actions (structural): Scheduled 2016 work to include reestablishment of collapsing service decks on north and south sides, door and window repairs and siding repair. Scheduled 2018 work includes reconstructed porch roof over east entrance.

Interpretation: Open to the public. Develop a furnishings plan and exhibits plan. Part of a self-guided walking tour.

Power Plant

What has been done: 2007 work included repair/replacement of entire building foundation, column repairs, partial roof replacement, re-roofing, smoke stack capping and structural stabilization, exterior wall repairs, ADA rampway system, access control, alleyway boardwalks. Repainted doors to mitigate lead paint hazard. Exhibit panels installed.

Proposed Actions (structural): 2011: Mediate oil and asbestos in the area. Boiler and stack preservation treatment. 2012 window repair/lead abatement including painting.

Interpretation: Maintain four interpretive exhibit panels on upper mezzanine. Part of a self-guided walking tour.

Small scale features: The following are proposed:

- Stabilization of structure members (those affected by fire of the south deck of the power plant).
- Reconstruct small section of boardwalk with stairs west of power plant.
- Clear building material from around and possibly reconstruct wood flume south of power plant.
- Reclad in corrugated metal utilidor sheds north and east of oil house.
- Maintain deck at oil house west of power plant.
- Brush plants in area and remove building material on top of utilidor on east power plant wall.
- Brush plants and where necessary excavate utilidor from oil house to oil storage tanks.
- Excavate utilidor west of power plant.
- Maintain utilidor from oil shed to oil shed.

Transformer House

What has been done: 2006 work included asbestos abatement and site clearing, french drain installed to underground water spring, partially re-roofed.

Proposed Actions (structural): Work scheduled for 2012 includes site grading to resolve drainage into the building, new foundation, repairs to floor structure, repairs to exterior siding, windows, doors, reroofing, and painting. Possible use as housing for water treatment.

Interpretation: Not open to the public. Part of a self-guided walking tour. Modify existing windows so that visitors can see inside.

Commercial Zone

Archeological Resources: Wherever feasible, all categories of archeological resources identified in the 2000 Cultural Landscape Report will be retained on the landscape. If removal is necessary for public safety or to facilitate building stabilization, archeological resources will be re-located as close to the original documented location as possible.

Vegetation: The following vegetation clearing would be done around all historic structures on NPS lands in this zone, for fire and windfall protection and to maintain public access:

- Clear all woody vegetation within 30' of all structures.
- Limb trees up to 10' above the nearest surface fuel within 100' of all structures.

Vegetation screening will be considered in this zone, particularly to screen the Dairy Barn area from the shuttle turn-around viewshed. Disturbed area revegetation would be considered as needed utilizing native herbaceous vegetation seed collected from the surrounding area. Area will continue to be monitored for invasive plants and populations of such will be manually removed.

Refrigerator Plant

What has been done: 2008 work included reconstruction of south, west walls and floor framing, roof repairs and reroofing, window and door repairs, lead mitigation and painting, new electrical wiring and lights and new steps and porch. Opened to visitors.

Proposed Actions (structural): Cyclic maintenance.

Interpretation: Open to the public. Develop a furnishings plan and exhibits plan. Part of a self-guided walking tour.

Small scale features: Restore historic ramp to the railroad corridor.

West Bunkhouse

What has been done: 2003 work included a new shingle roof and interior lead paint mitigation.

Proposed Actions (structural): 2012 and 13 work to include exterior rehabilitation to include new foundation, floor and wall repairs, construct exterior shear diaphragm, siding repair and painting, repairs to doors and windows. Retain interior options for potential partnerships and/or interpretation. Depending on the nature of future partnerships and the adaptive re-use of this building, it may be necessary to tie this building in with potable water and sewer systems.

Partnership: NPS will consider partnering with a non-profit for long-term adaptive re-use and management of this building. Criteria for potential partners include:

- Financially capable of funding interior rehabilitation to accommodate proposed adaptive re-use.
- A partner who places value on protection of historic, cultural, and natural resources.
- A partner who has an existing or historic connection with the community and/or Kennebecott.

- Adaptive re-uses of the building must also allow some public access for interpretive purposes.
- Partnership may be in collaboration with other entities (such as Kennecott Corporation, Friends of Kennecott, etc.)

Of the three bunkhouses remaining in the mill town, the National Creek and East Bunkhouses are in poor condition and will be managed into the future with little or no interior access to the public. Only the West Bunkhouse retains a high level of integrity reflective of its historic past, both with respect to its exterior appearance and to its interior design, functionality, and spatial layout. Because of the high historic and interpretive value of the structure, NPS has classified the interior rooms of the building relative to potential adaptive re-use. The purpose is to give potential partners an indication of where adaptive re-use might be considered. NPS rated each interior portion of the building as primary or secondary space. Primary space indicates rooms or areas that have maintained the integrity of their character-defining elements and retain high interpretive value. In general, adaptive re-use of these areas is acceptable provided the proposed use is compatible with the historic use of the room and as long as the design and materials needed for restoration are reflective of the original structure. Areas identified as primary space have a high interpretive value and NPS (or its partner) will have access for interpretation purposes. The following rooms and/or areas of the West Bunkhouse were identified as primary spaces:

Ground floor: Locker room; wash-up/sink area; office; west staff bunk room; staff area corridor; back porch.

First floor: Entryway; west side dining hall; and Kitchen/Pantry area.

Second floor: Lounge area; bunkrooms 1, 2, and 3 on the east end; and the hallway/corridor.

Third floor: Head of the stairway and the hallway/corridor.

Interpretation: Open to the public after interior renovation, in cooperation and consultation with prospective partner. After adaptive re-uses to support partnership have been determined, develop a furnishings plan and exhibit plan. Part of a self-guided walking tour.

New Schoolhouse

What has been done: 2003-2009 work included lifting and leveling of building, new foundation, floor structure, foundation skirting, lead paint mitigation, remove and restore historic siding, install shear diaphragm, restore doors and windows, reestablished two working restrooms, restored interior finishes, new electrical system and lighting, new septic and leach field system. Used as site maintenance offices and crew training room.

Proposed Actions (structural): ADA ramp to be completed in 2011. Restore classrooms after maintenance activity is removed from building. Install chalk boards, refinish floors 2016. In use as maintenance facility at least through 2018.

Interpretation: Possible future classroom for visiting school groups and interpretive exhibit opportunity. Part of self-guided walking tour. Acknowledge the location of the handball court in future interpretive material.

Small scale features: Re-establish cribwall/utilidor between New School and West Bunkhouse.

Recreation Hall

What has been done: 2001 - 2003 work included new foundation, dismantled and reconstructed east and west wall structure, lead paint mitigation, removed and reinstalled interior walls and ceiling and exterior siding, installation of structural shear diaphragm, repairs to trusses and roof sheathing, lead paint mitigation, exterior and interior painting, interior finishing, restoration of windows and doors, construction of ADA ramp, furnace, new electrical wiring, projector installation, furnace and ducting installation. In use as interpretive theater and shared community hall.

Proposed Actions (structural): Cyclic maintenance.

Partnerships: Currently working on lease agreement with Wrangell Mountain Center to manage the building for community events, interpretive programs, and classroom purposes.

Interpretation: Two interpretive panels exist. Open to the public. Part of a self-guided walking tour.

Small scale features: Hose house has been reconstructed. If possible, utilize to provide water source for fire suppression in proposed water and fire suppression system (see NPS Utilities and Infrastructure).

Old Schoolhouse

What has been done: 2009 work included dismantling and reconstruction of the west and east walls, lead paint mitigation, removed and reinstalled historic siding, installed shear diaphragm, restored windows and doors, reroofing, new electrical and lighting, interior and exterior painting, and floor repairs. In use as park offices.

Proposed Actions (structural): Cyclic maintenance.

Interpretation: Part of a self-guided walking tour. Possible interpretive exhibit for the outside of the building.

Partnerships: Intent is for NPS to vacate this space when Company Store is finished. This is long term. After NPS vacates, potential uses include winter caretaker quarters or partnership office space.

Dairy Barn

What has been done: 2010 work included new foundation and roof, construction of a shear diaphragm, lead paint mitigation including painting, door and window repairs, insulation, interior finishes, new electrical system, lights, plumbing. Connections to existing septic system/leach field.

Proposed Actions (structural): Communication system installation. Cyclic maintenance. Future use as shop/break room and this area will be utilized for employee parking. NPS will explore some solar installation potential for this site.

Residential A Zone

Archeological Resources: Wherever feasible, all categories of archeological resources identified in the 2000 Cultural Landscape Report will be retained on the landscape. If removal is necessary for public safety or to facilitate building stabilization, archeological resources will be re-located as close to the original documented location as possible.

Vegetation: The following vegetation clearing would be done around all historic structures on NPS lands in this zone, for fire and windfall protection and for access to the buildings:

- Clear all woody vegetation within 30' of all structures.
- Limbing of trees up to 50' from the buildings. Consideration will be given to the effects on thinning/limbing on adjacent landowners and maintaining privacy/vegetation screening.

Elsewhere in this zone, selective thinning would occur in order to open views of the Kennicott glacier and/or mill building. Specific locations include (See Figure 3):

- Selectively clear mill building view sites on the Silk Stocking trail approaching the National Creek bridge.
- Selectively clear specific view positions along the historic wagon road on south side of National Creek to frame views of historic structures and glacier and mountains beyond. See description under Circulation and Access.

Encourage and/or allow vegetable and flower gardens present in 1938, including vegetable beds and flower boxes, based on historical documentation and precedent. Consider re-establishment of foundation plantings, and grass between cottages as reflective of the period. Invasive and high water demanding species will be avoided. Area will continue to be monitored for invasive plants and populations of such will be manually removed. Disturbed area revegetation would be considered as needed utilizing native herbaceous vegetation seed collected from the surrounding area.

Circulation/Access: The old wagon road from the Company Store through the landslide at the south slope of National Creek would be cleared and maintained for pedestrian use only. The landslide would be by-passed or a trail constructed through it (see Figure 3).

East Bunkhouse:

What has been done: 2010 work included excavation of flood materials from the interior of the structure, lead waste removal, foundation replacement, and repairs to exterior structural walls, shear diaphragm, floor structure, and access control. Work also included removal of bathhouse wing from the west end of the building.

Proposed Actions (structural): Re-siding with salvaged materials and new, "shadow" reconstruction of lower-level windows and doors (openings are framed but do not contain actual doors or windows). Repair roof and stabilize. This building is critical to maintain in place for National Creek stability.

Interpretation: No interior access. Part of a self-guided walking tour.

National Creek Bunkhouse:

What has been done: Windows and doors screened to prevent access.

Proposed Actions (structural): Work to include interior reinforcement to help stabilize the structure, re-roofing to extend the life of the ruin structure. Manage as a ruin as part of the Kennecott streetscape.

Interpretation: No interior access. Manage and interpret as a ruin. Part of a self-guided walking tour. Modify existing windows on the lower level so that visitors can see inside.

South Silk Stocking Cottage:

What has been done: 2008 work included new foundation, roofing, window and door rehab, exterior and interior lead mitigation, painting, refinished floors, new electrical wiring, propane lighting, plumbing, septic/leach field. In use as employee housing. Missing garage structure reconstructed to provide summer storage, for both cottages, to keep staff bicycles etc. out of the landscape and provide space for power generator and backup battery bank.

Proposed Actions (structural): Cyclic maintenance.

Interpretation: Part of a self-guided walking tour.

North Silk Stocking Cottage:

What has been done: 2008 work included new foundation, roofing, window and door rehab, exterior and interior lead mitigation, painting, refinished floors, new electrical wiring, propane lighting, plumbing, septic/leach field. In use as employee housing.

Proposed Actions (structural): Cyclic maintenance.

Interpretation: Part of a self-guided walking tour.

Residential B Zone

Archeological Resources: Wherever feasible, all categories of archeological resources identified in the 2000 Cultural Landscape Report will be retained on the landscape. If removal is necessary for public safety or to facilitate building stabilization, archeological resources will be re-located as close to the original documented location as possible.

Vegetation: The following vegetation clearing would be done around most historic structures on NPS lands in this zone, for fire and windfall protection and for building access:

- Clear all woody vegetation within 30' of all structures.
- Limbing of trees up to 50' from the buildings. Consideration will be given to the effects on thinning/limbing on adjacent landowners and maintaining privacy/vegetation screening.

In cooperation with private landowners, clear woody vegetation along the rail corridor north of the Mill building to end-of-rail to reestablish conditions reflective of historic period and improve glacier views (see Figure 3).

Encourage and/or allow vegetable and flower gardens present in 1938, vegetable beds, flower boxes. Consider re-establishment of foundation plantings, and grass between cottages as reflective of the period. Invasive and high water demanding species will be avoided. Area will continue to be monitored for invasive plants and populations of such will be manually removed. Disturbed area revegetation would be considered as needed utilizing native herbaceous vegetation seed collected from the surrounding area.

Circulation/Access: Maintain historic access routes for pedestrian and local vehicle use.

Kennecott Cottage 39C, Lot 88

What has been done: Previous owners did interior work. Two interpretive panels.

Proposed Actions (structural): Tentative for 2014 but not funded. Work to include roofing, lead paint mitigation, re-establish trim and cabinetry details, repairs to interior paneling, floors and ceiling, new electrical wiring and lights, interior and exterior painting, doors and window repairs.

Interpretation: Open to the public. Develop furnishings plan and exhibit plan. Part of a self-guided walking tour.

Vegetation: Re-establishment of historical vegetation - this may be a lawn and garden.

Small-scale features: If permission/cooperation can be obtained from adjacent landowners, consider re-establishing boardwalks in front of the cottages in this zone on the west side of the railroad bed.

Kennecott Cottage 13C, Lot 80

What has been done: This cottage on the east side of the railroad bed, was acquired by NPS in 2005. Nothing has been done.

Proposed Actions (structural): Manage as ruin.

Interpretation: Manage and interpret as a ruin. Part of a self-guided walking tour.

Vegetation: Selective thinning that allows views of boardwalk, cottage, and railroad bed without allowing for entry to this unsafe area.

Kennecott Cottage 39B, Lot 87

What has been done: Recently acquired by NPS.

Proposed Actions (structural): Not funded at this time. Potential work to include roofing, lead paint mitigation, repairs to interior paneling, floors and ceiling, new electrical wiring and lights, interior and exterior painting, doors and window repairs. Consider as potential future office space or backcountry contact station.

Interpretation: Manage and interpret as a ruin. Part of a self-guided walking tour.

Vegetation: If structure is preserved, consider re-establishment of historical vegetation - this may be a lawn and garden.

Small scale features: If permission/cooperation can be obtained from adjacent landowners, consider re-establishing boardwalks in front of the cottages in this zone on the west side of the railroad bed.

Transportation/Access

Off Road Vehicle Use

Recreational ORVs: Recreational ORV use does not include ORV use for accessing private lands or ORV use for subsistence activities by federally qualified subsistence users. In Wrangell-St. Elias National Park and Preserve, recreational ORV use is currently authorized through 43 CFR 36.11(g)(2), which is used to issue permits on existing trails. Use of this authority requires a finding that the ORV use is compatible with park purposes and values. As part of this planning process, NPS will solicit public comment and make a determination regarding the compatibility of recreational ORV use with management of the Kennecott NHL and surrounding area.

Subsistence ORV use: The use of Off-Road vehicles by federally qualified subsistence users in the area is authorized by 43 CFR 13.46, which allows the use of “surface transportation traditionally employed”. The 1986 Wrangell St. Elias National Park and Preserve General Management Plan made the determination that ORVs were a traditional means of access for subsistence purposes in the park. This Kennecott management plan does not propose any restrictions on this activity.

Parking

Consistent with the transportation/access goal stated on page 3, the NPS proposes the following:

- East of the Kennecott River, parking for loading and unloading adjacent to the footbridge would continue to be available on state Right of Way (ROW). Also on the east side of the river, the NPS would encourage development of new private parking and encourage use of public parking at the McCarthy airport.
- Within the NHL, NPS would develop a Memorandum of Understanding (MOU) with NHL landowners to manage vehicle access and parking. Vehicle parking in the NHL would be allowed by landowners, their guests, local McCarthy residents, NPS staff and contractors in designated, limited areas with a daily time limit. NPS would discourage the use of common easements in the NHL for vehicle parking. At the Dairy Barn, the only parking would be by NPS and contractors. Limited parking would be allowed by event organizers at the Recreation Hall when they are using that facility for a private function. All parking would be south of National Creek.
- At the Dairy Barn, the only parking would be by NPS and contractors. This site would be utilized by all NPS employees (including maintenance, interpretation, and law enforcement) as the transition area from “commuting” vehicles to specialized work vehicles. The proposed action would organize an effective NPS crew shuttle system to service employees from the west side of the Kennicott River to Kennecott itself. WRST

would work with local community to support an efficient public shuttle system and adequate hours of operation.

- Public education through the park's website and through on-site signing identifying public parking areas, public shuttle systems, and the LACK of public parking available at the mill site.
- Public parking on NPS owned portions of the Kennecott subdivision easements will be prohibited. Exceptions will be made for ADA access and for subsistence purposes.

Shuttle Turnaround

The shuttle turnaround will be completed. Work to include adding a pedestrian shelter, additional benches, restrooms, and vegetation screening. Additional interpretative exhibits will be added in the shelter, along with a bulletin board and telephone. A bicycle rack will be provided.

Roads

State ROW, McCarthy to Kennecott: NPS would encourage ADOT&PF to design the rail corridor road as a one-lane gravel road that maintains its historic character with a 25-mph speed limit designed to accommodate safe vehicle passing. Between McCarthy and Kennecott, a cooperative agreement would be sought with NHL landowners and businesses to address NHL road maintenance and another cooperative agreement would be sought with the State and local landowners to address road maintenance outside of the NHL.

Wagon Road: NPS would consider developing a map and possible interpretive opportunity at the cemetery. This would be part of a self-guided walking tour. Proposed NPS activities at the cemetery include fence maintenance/reconstruction, brushing of vegetation, and maintenance of some grave markers.

Silk Stocking Loop: See vegetation clearing proposals under Residential A zone. Part of a self-guided walking tour. Possible interpretive exhibit opportunity at a viewpoint.

Railroad grade through the mill town: In cooperation and consultation with private lot owners, explore restoration of rails from National Creek trestle to the north end of lot 86. Rails would be partially buried to allow vehicle access.

Subdivision road easements: Easements within the mill site serve as a means of accessing private property for landowners and their guests. The NPS has no authority to unilaterally impose restrictions on the use of those roads for transportation purposes by the other lot owners and their guests. NPS will participate with other subdivision lot owners in cooperative educational signing to inform visitors regarding appropriate use of easements.

Trails

See proposals listed under “Circulation and Access” for the Industrial, Administrative Core, and Residential A zones. These proposed trails would be maintained as non-motorized trails.

NPS would construct a trail to the National Historic Landmark from the footbridge over the Kennicott River east (dry) channel along the eastern side of the Kennicott Glacier, and connecting to the Company Store in Kennecott. It would be constructed and maintained for non-motorized use. A trail segment that links with the proposed walk-in campground (see description below) would also be included. This non-motorized trail would be approximately 3 ½ miles long and would be constructed from the north end of the campground along the glacial moraine up to Kennecott. The foot trail would connect with the old Wagon Road in the vicinity of the West Bunkhouse or Company Store. The trail would be approximately 2 feet in width and would be constructed with existing moraine material. Due to steep topography in some areas some sections will need some minor development to ensure safety and to ensure that water will move off the trail. The trail would not be visible from the railroad corridor. Views of Kennecott and surrounding landscape features would be experienced along the way.

In general, NPS would keep signage at trailheads and interpretive signage to a minimum with self-guided walking tours and maps available at the Visitor Center.

Walk-In Campground

A 2002 Environmental Assessment and Finding of No Significant Impact proposed and evaluated effects of a walk-in campground. NPS is still committed to the concept, which would designate 42 acres of land east of Kennicott River for primitive tent camping. The site under consideration is one mile northeast of McCarthy and 0.35 mile from McCarthy Airport.

Campground facility development and amenities would include drinking water, vault toilets, bear-resistant trash receptacles, bear-resistant food storage boxes, and centralized food storage area. Camper food storage, food preparation, and food consumption would be restricted to the centralized area and prohibited at individual campsites. Access to the campground would be limited to non-motorized methods. Routes of access would be either the trail described above, or from McCarthy airport using public rights-of-way (Kennecott-McCarthy Road and Blackburn Road) crossing a platted subdivision on nonfederal land.

NPS Utilities and Infrastructure

Mill Site Water System (this system was proposed, analyzed, and presented in public meetings in the 2006 Kennecott Mines Support Facility Plan/EA). See Figure 4.

Water Gathering and Storage.

A water intake structure would be constructed on Bonanza Creek. Historically, water intakes were constructed at an elevation of 2350 feet on Bonanza and National creeks. The water was used for milling operations, power generation, fire protection, and drinking water. The following elements are proposed:

A water intake structure would be constructed at or below the historic intake (currently in private ownership) on Bonanza Creek at an elevation of about 2,350 feet. To construct the intakes, the sides of both stream beds would be excavated and concrete intakes about 6 feet by 6 feet by 6 feet would be constructed and installed nearly flush with the ground surface. The areas of construction would be backfilled and restored.

A water storage tank with a capacity of approximately 120,000 gallons would be constructed at an elevation of about 2270 feet. A smaller, potable water treatment tank with a capacity of about 5,000 gallons will also be required in the vicinity of the larger water storage tank. Vegetation would be cleared and a level gravel terrace would be graded in an area of about 0.5 acres. About 2200-2600 lineal feet of 10-inch diameter hydroelectric waterline between the Bonanza Creek intake and the storage tank would be constructed. This would include 1000-1300 feet from the intake to Bonanza Road that would be cleared and graded. A water pipeline would be constructed either on grade, or buried at a depth of 4-6 feet. A pathway for construction equipment and line maintenance would be constructed along the pipeline.

Water Treatment

A potable water treatment facility would be constructed at either the Transformer House or the Power Plant. Facility design to assure compatibility with the historic fabric would be provided.

Potable Water Distribution Lines

A treated potable water line would be constructed in parallel with a fire flow distribution line in the historic railroad alleyway of the Mill Town. The piping would run together in buried or reconstructed above-ground wood utilidors. About 2800-3600 lineal feet of potable water pipeline would be required; if buried, the line would be 1 - 2 feet deep. Trenching and excavation in the alleyway would have to proceed in a way to avoid damage to buried archeological features such as railroad ties, piping, and utilidors.

Water service will come to the Dairy Barn, Old School, New School, West Bunkhouse, Store, Machine Shop, and Power Plant over time. Potable water distribution lines and connections and fittings will be buried.

Fire Suppression (covered in 2006 Kennecott Mines Support Facility Plan). See Figure 4.

The proposed fire suppression system would consist of underground piping with installed hydrants (utilizing historic hose house where possible), water suppression/sprinkler system at some buildings. A mini-pumper fire emergency response vehicle is anticipated. Specifically, as recommended in the 2005 Value Analysis, water suppression systems, such as wet/dry sprinkler system and foam deluge systems would be installed in some of the buildings including the Mill Building, Power Plant, Machine Shop, Leaching Plant, Company Store and Recreation Hall. The West Bunkhouse would be connected to the water supply for installation of fire suppression by any potential future partner.

A foam deluge system may be used at the Mill because of its unique construction and sheer size. At this date, computer modeling of fire behavior has been completed for the Mill, Power Plant, Machine Shop and the Leaching Plant. The computer model has provided data for the design of the water utility system.

Sanitary Sewer System

Collection, treatment and disposal of sewage (wastewater) generated by visitors and staff in NHL buildings and on the west side of the Kennicott River would be achieved primarily by septic systems (septic tanks and leach fields).

The buildings that would be equipped with sewer service are the Dairy Barn, Old School, New School, West Bunkhouse, Store, Machine Shop, Power Plant, and Silk Stocking cottages.

The existing ADEC approved septic system and leach field has been expanded to service Dairy Barn property acquired in 2005. The Store, West Bunkhouse, New School, Old School and Dairy Barn would be serviced by this system field.

Excavations would be made along the west side of the site behind the Store and under the historic wagon road. About 1050 lineal feet of buried sewer line from the Store to the Dairy Barn would be provided. Sewage lift station(s) may be required. The lift station would be installed in a buried manhole in the line between the Store and Dairy Barn. A total of 6-8 manholes would be constructed.

Power Generation and Distribution

The generator located south of the Dairy Barn will continue to provide power for NPS operations at Kennecott. NPS will construct an enclosure around the generator connex in order to mitigate noise production and visual impact. The 2006 Kennecott Mines Support Facility Plan proposed

utilizing hydroelectric power utilizing water out of Bonanza Creek, a Pelton wheel housed in the Power Plant, power generation equipment, and batteries. The potential for utilizing hydroelectric power at the site is still being considered but a specific proposal will not be analyzed in this planning effort. In 2011, a five year water monitoring effort on Bonanza Creek will be completed. The data has been gathered to help determine the feasibility of hydroelectric power. NPS will continue to assess this idea as well as the potential to supplement generator power with alternative energy sources.

West Side Development

Proposed development for the West Side was discussed in the 2006 Kennecott Mines Support Facility Plan. Work yet to be completed includes construction of a material storage building, construction of three single family houses, and construction of additional cabanas. NPS still intends to construct the proposed housing, storage building, and cabanas, as funding becomes available.

Airport Office

Installation of a co-gen unit to supplement existing power generation and provide heating capabilities will occur in 2011. Long term intent is for this area to serve as the telecommunications hub for Kennecott and west side NPS facilities and serve as a winter office. This office also will serve as an incident command post and provides an aviation support function.

Solid Waste Management

NPS will acquire a trash compactor at west side to reduce number of back-haul trips to the landfill. NPS supports the development of a privately owned solid waste transfer facility and would consider utilizing such a facility if economically viable.

Visitor and Resource Protection

Emergency Medical Service

The NPS would continue to develop area-wide EMS response in partnership with local individuals, organizations and EMS providers inside and outside the community. The NPS supports the development of an EMS function within the Kennecott-McCarthy Volunteer Fire Department (KMVFD) that would have primary EMS-response duty on private land in the Kennecott-McCarthy area. The NPS would remain the primary EMS provider on NPS-managed lands, but may provide EMS service on non-NPS-managed land, under specific circumstances. The authority for providing EMS assistance to neighboring communities and outside agencies is specifically provided for in 16USC1b(1), “Rendering of emergency rescue, firefighting, and cooperative assistance to nearby law enforcement and fire prevention agencies and for related purposes outside of the National Park System”.

The NPS would seek a cooperative agreement with the KMVFD that would address agency cooperation related to EMS and firefighting response. The NPS would continue to coordinate emergency response training and encourage participation by all interested parties. All EMS functions performed by the NPS would be in accordance with NPS Director’s Order #51 (EMS), the WRST Emergency Medical Services Plan and under the direction of the Park EMS Medical Advisor. The NPS supports the Park’s EMS Medical Advisor’s providing advice and oversight on EMS to the KMVFD and area guide services.

Search and Rescue (SAR)

The NPS would continue to provide SAR response within the NHL and greater park area. Major EMS and SAR incidents can quickly overwhelm local NPS staff resources. Due to this, the NPS supports an on-call EMS/SAR team of non-NPS responders. During an emergency incident, EMS/SAR team members would be hired and paid for the duration of that incident using the AD/Emergency Hire System. During on-call time, EMS/SAR team members are considered volunteers and are not paid. The NPS would continue to provide SAR training to staff and area volunteers. NPS would operate within the Incident Command System. The NPS would improve radio communication with other agencies, such as the KMVFD and AK State Troopers.

Fire Response

Structural fire response within the NHL would be accomplished primarily through the proposed mechanical fire suppression described on page 27. Protection of structures from wildland fire would be accomplished through the proposed clearing and thinning of vegetation around structures, as well as suppression response from NPS staff and the KMVFD. The NPS would work closely with KMVFD and State of AK Division of Forestry to develop appropriate fire response strategies. The NPS would continue to issue Fire Fuels Reduction Permits to land

owners adjacent to NPS-managed lands. The NPS supports the development and implementation of **DNR's** Community Wildland Fire Protection Plan. The NPS prohibits fires on NPS lands within the millsite, 36CFR13.1906. Fire extinguishers are maintained in all NPS properties.

According to the National Fire Protection Association, the single largest cause of fire in historic buildings is arson. Regular patrols of the NHL would be conducted by NPS personnel to guard against this threat. Hiring a winter caretaker would be considered to provide overall site security.

Bear-Human Conflict Management

The NPS would continue to address this issue through education of NPS staff, visitors and area residents on appropriate behavior around bears and through enforcement of the Park's food storage regulation. Placement of additional bear-resistant garbage cans will be considered if need increases. When necessary, the NPS would actively manage bear behavior if the animal poses a threat to human safety. The NPS would impose emergency closures when necessary to protect human safety.

Law Enforcement

The NPS would continue to provide a prevention-based law enforcement program in the NHL. Emphasis would be placed on education and enforcement of regulations that protect visitor safety and the area's natural and cultural resources. A memorandum of understanding would be maintained with the AK State Troopers, allowing for mutual assistance between the agencies when necessary.

Other

Jumbo Transfer Station

What has been done: 2008 work included volunteer effort for emergency foundation and roof repairs, improvements to stop animal access into the building.

Proposed Actions (structural): Future work to include reroofing, wall and floor repairs, structural repairs. Possible use as a public use cabin.

Mudhole Smith cabin

What has been done: Vegetation clearing for fire protection.

Proposed Actions (structural): Replace sill logs.

Interpretation: Interpretive site with exhibit regarding aviation history in the area.

Jumbo Mine/Root Glacier outhouse

A vault toilet would be installed near the junction of the Root Glacier trail and the Jumbo Mine trail. The intent is to take pressure off the more remote (and unserviceable) Jumbo Creek outhouse.